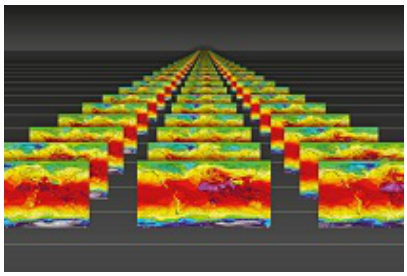

Contribution ID: **18** Type: **Oral presentation**

The global ICON-EPS: a contribution to TIGGE?

Wednesday, 3 April 2019 10:30 (15 minutes)

Since January 2018 DWD runs a global ICON ensemble suite with 40 members and approx. 40km horizontal resolution including a grid refinement for Europe of 20km. Forecasts are generated at 00/12UTC up to +180h and at 06/18UTC up to +120h. To improve the boundary conditions for the COSMO-D2-EPS four additional runs take place at 03/09/15/21 with a limited forecast time of +30h. The ICON-EPS initializes from analysis states generated by the Local Ensemble Transform Kalman Filter (LETKF) data assimilation system running at DWD. Random perturbations of some physical model parameters are selected at the beginning of each forecast. We provide operational ensemble products on our open-data servers according to the WMC (World Meteorological Center) requirements and would appreciate contributing to other international projects like TIGGE. In the talk we report the actual configuration of the system and give an outlook on our future plans. When introducing the ICON-EPS to the forecasters at DWD the most important step was to evaluate the system against the well established ECMWF-EPS. We will show that the ICON-EPS adds value especially in the case of extreme events. On this basis we started the development of a global risk index called EWI (Extreme Weather Index). It combines ECMWF ensemble products (EFI, SOT, quantiles) with the forecasted quantiles of the ICON-EPS probability distributions.

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